

NAVAL WAR COLLEGE
Newport, R.I.

OPERATIONAL DECEPTION IN THE ERA OF INFORMATION SUPERIORITY
Just whom are we fooling?

by

Clinton T. Anderson
Colonel, U.S. Army

A paper submitted to the Faculty of the Naval War College in partial satisfaction
of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily
endorsed by the Naval War College or the Armed Forces of the United States.

Signature: Clinton T. Anderson

19 June 1998

Paper directed by
CAPT George W. Jackson, USN
Chairman, Department of Joint Military Operations

REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED	
2. Security Classification Authority:	
3. Declassification/Downgrading Schedule:	
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.	
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT	
6. Office Symbol: C	7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207
8. Title (Include Security Classification): Operational Deception in the Era of Information Superiority (U)	
9. Personal Authors: Clinton T. Anderson, Colonel, US Army.	
10. Type of Report: FINAL	11. Date of Report: 15 May 1998
12. Page Count: 20	
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.	
14. Ten key words that relate to your paper: Deception, Operational Deception, Persian Gulf War, Operation Desert Shield / Storm, Joint Pub 3-58	
15. Abstract: This paper addresses the topic of operational deception and asserts its continued utility and feasibility in an age of increasingly high-tech intelligence gathering and dissemination systems. The paper examines both the theory and historical tenets of successful deception operations. It then examines operational deception during Desert Storm to understand why deception continues to be effective. The paper concludes that deception operations are a combat multiplier that must be employed by the operational commander, and cautions the operational commander to be ever conscience of his adversary's use of deception to influence his decisions.	

16.Distribution / Availability of Abstract:	Unclassified X	Same As Rpt	DTIC Users
17.Abstract Security Classification: UNCLASSIFIED			
18.Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19.Telephone: 841-6461		20.Office Symbol: C	

Security Classification of This Page Unclassified

INTRODUCTION

In war it is all-important to gain and retain the initiative, to make the enemy conform to your action, to dance to your tune.¹ SIR WILLIAM SLIM

"Tomorrow's battlefield environment will feature a mixed architecture of sensors at various levels of coverage and resolution that collectively illuminate it thoroughly."² These sensors, when coupled to future information and systems integration technologies will significantly impact military operations by providing decision makers precise information about the battlefield environment whenever the decision maker wants it.³

The Chairman of the Joint Chiefs of Staff, General John M. Shalikashvili, captured his vision for the future of our armed forces in his document *Joint Vision 2010*. "This vision of future warfighting embodies the improved intelligence and command and control available in the information age"⁴ and stresses the development of four operational concepts for future warfighting: dominant maneuver, precision engagement, full dimensional protection, and focused logistics. The application of these four concepts by a military force will dominate an opponent across the range of military operations. "This full spectrum dominance will be the key characteristic we seek for our Armed Forces in the 21st century."⁵

To achieve full spectrum dominance the Chairman states that we must fully develop and integrate these future intelligence and information systems to achieve information superiority over our future adversary's. This information superiority will mitigate the impact of the fog and friction of war and yield a more transparent battlespace.⁶

Will this system of systems clear away the fog of war and therefore reduce our susceptibility to deception, or will the system simply provide more conduits to

increase our susceptibility? As our military moves rapidly towards an era of unprecedented battlespace awareness, proponents and manufacturers of high-tech sensor systems would like us to believe that deception is no longer possible. This paper will analyze the historical theory, doctrine, and the recent application of operational deception and answer the question "Can tomorrow's high-tech military force be deceived?"

DECEPTION: THE THEORY

All warfare is based on deception. Therefore, when capable, feign incapacity; when active, inactivity. When near, make it appear that you are far away; when far away, that you are near. Offer the enemy bait to lure him; feign disorder and strike him.⁷ SUN TZU

"Deception has long been recognized as one of the most important elements inherent in warfare."⁸ Since a force cannot be strong at all points, using deception can disguise your actual dispositions on the battlefield. More than that, it can cause an opponent to make decisions that will place him in a disadvantageous position. Nearly two thousand five hundred years ago, Sun Tzu noted in his essays on the art of war that "All warfare is based on deception."⁹ He recognized that it was possible to gain the advantage against an enemy by surprising them through guile and cunning actions. His thought at the top of this page, captures all of the essential components of deception today. His guidance demands that the commander use all the tools at his disposal to confuse his opponent as to his actual capabilities and intent. He suggests that once an enemy commander has been inaccurately convinced of a weakness at a specific time and place, that he can be lured into action on terms unfavorable to his force.

Following the Napoleonic wars, Henri de Jomini, in *his Summary of the Art of War*, recognized the importance of keeping enemy commanders off balance through

deceptive means. He describes one purpose for the use of detachments: "To operate a deception with a view to drawing the enemy in a direction where you desire him to march, in order to facilitate an operation undertaken on another side."¹⁰ If properly executed, such actions can tie up enemy combat power at other points on the battlefield permitting the friendly force to conduct operations with superior correlation of forces at the decisive point.

General Waldemar Erfurth provided several thoughts regarding the use of deception to gain surprise based on the Wehrmachts success in Poland and France. "On principle, it can be said that surprises are only accomplished if and when by some kind of a ruse the enemy has been deceived, or confused."¹¹ He also stated that total surprise is not necessary, that "The enemy may well know many important details about the attack in preparation and still be surprised by its location and timing."¹²

Mao Tse-tung discussed the value of deception in revolutionary warfare in his book, *On Protracted War*. He stated that "In order to achieve victory we must as far as possible make the enemy blind and deaf by sealing his eyes and ears and drive his commanders to distraction by creating confusion in their minds."¹³ His primary method for creating this confusion was deception and trickery. Mao states: "...it is often possible by various ruses to succeed in leading the enemy into a morass of wrong judgments and actions so that he loses his superiority and the initiative...There can never be too much deception in war..."¹⁴ In fact, deception is critical to achieving victory on future battlefields. Modern military theorist, Professor Michael Handel states that "In the case of unequal opponents, deception and surprise can help the weaker side compensate for its numerical or other inadequacies."¹⁵

As illustrated above, renowned military theorists continue to recognize the importance of achieving surprise through deception on the battlefield. Moreover,

several specifically indicate how the use of deception creates the means for securing the initiative or leverage needed for victory.

DECEPTION: THE DOCTRINE

"Stratagem is a skill transmitted by conscious instruction from master to student."¹⁶
BARTON WHALEY

Joint Pub 1: Joint Warfare of the Armed Forces of the United States describes our military's approach to generating and applying combat power at the operational level of war. Among other principles, it is based on securing the initiative and exercising it aggressively to accomplish the mission. To secure the initiative we must strike our opponent in such a manner as to surprise him, throw him off balance, and prevent him from recovering. One method of achieving surprise is through the use of deception.

The relationship between deception, surprise, and initiative can be best described as cause and effect. In essence deception yields surprise, and surprise yields initiative. In this regard all three factors; deception, surprise, and initiative are inextricably linked. To gain and retain the initiative we must continuously surprise our opponent. To obtain surprise, we must first learn the art of deception.

In 1988 the Army published a new edition of Field Manual 90-2, *Battlefield Deception* which sought to revitalize the operational deception skills that served our military well during World War II and the Korean War. The manual explained the importance of deception to theater level operations and defined the difference between operational and tactical deception. Operational deception seeks to influence the decisions of enemy commanders before battle occurs to ensure success of tactical actions which can subsequently be operational exploitable.¹⁷ At the tactical level,

deception focuses on protection by masking tactical dispositions and the intent of the force.¹⁸

Field Manual 90-2 provides ten maxims that describe how deceptive activities affect the decision making process. First, it is generally easier to convince your enemy to follow his own preconceptions than it is to convince him otherwise.¹⁹ Second, the human mind is susceptible to conditioning. Frequently, opponents will fail to notice small changes in indicators even if the cumulative change over time is large.²⁰ Third, the enemy can be conditioned or de-sensitized to an event through the use of repeated false alarms.²¹ Fourth, deception becomes more difficult as the number of different sensors increases. However, the greater the number of controlled sensors the greater the likelihood the deception will be believed.²² Fifth, the objective of the deception effort is to reduce the uncertainty in the mind of your opponent, forcing him to seize upon the notional view as being correct. Increasing the number of seemingly false alternatives will make the target more certain of the 'correct' notional view.²³ Sixth, there are circumstances where deception assets should be held in reserve despite the costs of maintenance and risk for a time of greater benefit.²⁴ Seventh, deception activities should be sequenced so as to maximize the credible portrayal of the deception story for as long as possible.²⁵ Eighth, knowing that the enemy is paying attention to your deception effort increases your chances of success.²⁶ Ninth, there are times when the deception effort will produce subtle and unwanted reactions by both enemy and friendly forces. Deception planners must be aware that fog and friction is unavoidable in their arena as well.²⁷ Finally, information that enemy intelligence collectors acquire too easily is often dismissed as false.²⁸

These maxims provide the foundation required to substantiate why deception will remain a valid combat multiplier in the future. Deceptive activities may not fool

the high-tech sensor platforms, but they can certainly deceive both the commander and/or his battlefield analyst.

Recently the Joint Staff published *Joint Pub 3-58: Joint Doctrine for Military Deception* to provide fundamental guidance and principles for the planning and execution of military deception. From the Joint Staff's study of multiple campaigns, numerous major operations, and the writings of respected military theorists they have derived six principles of military deception:²⁹

Focus. The deception must target the adversary decision maker capable of taking the desired action(s). The adversary's intelligence system is normally not the target. It is only the primary conduit used by deceivers to get selected information to the decision maker.

Objective. The objective of the deception must be to cause an adversary to take (or not to take) specific actions, not just to believe certain things.

Centralized Control. A deception operation must be directed and controlled by a single element. This approach is required in order to avoid confusion and to ensure that the various elements involved in the deception are portraying the same story and are not in conflict with other operational objectives. Execution of the deception may, however, be decentralized so long as all participating organizations are adhering to a single plan.

Security. Knowledge of a force's intent to deceive and the execution of that intent must be denied to adversaries. Successful deception operations require strict security. Need-to-know criteria must be applied to each deception operation and to each aspect of that operation. Along with an active operations security (OPSEC) effort to deny critical information about both actual and deception activities, knowledge of deception plans and orders must be carefully protected.

Timeliness. A deception operation requires careful timing. Sufficient time must be provided for its portrayal; for the adversary's intelligence system to collect, analyze, and report; for the adversary decision maker to react; and for the friendly intelligence system to detect the action resulting from the adversary decision maker's decision.

Integration. Each deception must be fully integrated with the basic operation that it is supporting. The development of the deception concept must occur as part of the development of the commander's concept of operations. Deception planning should occur simultaneously with operation planning. Joint Pub 3-58 does an excellent job of describing why our joint force commander must integrate deception into his campaign and operations planning. Additionally it provides guidance on how to conduct deception activity planning to maximize its impact on the operational objective.

In the next section, this paper will review the practice of deception by CENTCOM during the Persian Gulf War. This section will substantiate the value of deception during the dawn of the information age and will show how and why deception will continue to be a combat multiplier into the future.

DECEPTION: THE PRACTICE

"In war-time, truth is so precious that she should always be attended by a bodyguard of lies."⁹⁰ SIR WINSTON CHURCHILL

In spite of a general lack of operational doctrine prior to Operation Desert Shield and Desert Storm, CENTCOM planned and executed a multi-dimensional deception operation at the theater level which focused on both the principles and maxims of deception as listed in the previous section. General Schwarzkopf placed a

high priority on deception operations intended to convince Saddam Hussein that the main attack would be directly into Kuwait, supported by an amphibious assault on Kuwait's coastline. The resulting deception plan emphasized the use of all components of his force. Army and Marine units conducted aggressive patrolling, feints, and artillery raids; Naval and Marine forces conducted amphibious feints and ship movements, and the Air Force and Naval aviation conducted a multitude of air operations all synchronized and focused on the deception objective.³¹

Execution of the deception plan was initiated well before both air and ground offensive operations were conducted with the posturing of a Marine amphibious task force off the coast of Kuwait and the defensive placement of coalition ground forces opposite the Iraqi forces defending along the Kuwaiti border. Well-publicized amphibious landing training was conducted in both Oman and along Saudi-Arabia's coast line. Simultaneously, the media observed and reported on breach drill rehearsals conducted by Army units in Saudi Arabia. Detailed full-scale mock-ups of Iraqi defensive positions and obstacle belts were constructed and units practiced day and night operations under the ever-watchful eyes of the press. Both operations served to demonstrate the US capability and intent to attack Iraqi forces head-on in Kuwait.

On 29 January, the 13th Marine Expeditionary Unit (Special Operations Capable) (MEU(SOC)) conducted a raid on the Kuwaiti Island of Umm Al-Maradim which focused Iraqi decision makers on the possibility of an amphibious assault into Kuwait. Iraqi reinforcements were positioned in coastal defenses along Kuwait's coastline to defend against amphibious assault.³²

Deception operations began in earnest during the 13-26 February time period with the initiation of a series of raids conducted by the 1st Cavalry Division along the

Wadi Al-Batin in Western Kuwait; the 1st Marine Expeditionary Forces (I MEF) Task Force Troy in South-Eastern Kuwait; and the 4th Marine Expeditionary Brigade (MEB) along the Kuwaiti coastline. (Reference Annex A.)

To ensure that the Iraqi decision makers had taken the bait, CENTCOM intelligence collectors kept a close watch for indicators of Iraqi unit movement. Use of the Joint Surveillance Target Attack Radar System (JSTARS) gave indication of when and where Iraqi reserve forces were shifted on the battlefield. When CINCCENT was certain that Hussein was focused on both the coastline and the Wadi he initiated the western envelopment of the Iraqi defenses.

Deception operations continued through G + 1 and were responsible for fixing three Iraqi infantry divisions along the coastline and five infantry divisions plus an armored division in the vicinity of the Wadi Al-Batin, all well away from the coalitions main ground effort.

Research conducted into Iraqi use of deception is sparse and did not substantiate use of operational deception by the Iraqi leadership. However, on at least two occasions, U.S. tactical units were moved on the battlefield in response to inaccurate analysis of sensor output. In early January 1991, ARCENT Reserve Forces were committed to block the advance of 150 moving target indicators (MTI) detected by JSTARS and analyzed falsely as an enemy attack. The unit continued to react to the daily evening report of the 150 MTIs moving south until a reconnaissance in force was approved to determine the enemy composition, disposition and intent. During the reconnaissance, the unit determined that the 150 MTI was an analysts misread of a concertina wire obstacle moving in the wind.

Without the enemy commander doing a thing, our own sensors confused ARCENT decision makers as to enemy intent, resulting in the reserve force being

committed at the improper place and time. Chaos could have ensued if the enemy had made a concerted effort to deceive our decision makers.

ANALYSIS

The essence of deception is that it lets the enemy convince himself that the misleading picture is valid.³³ MICHAEL I. HANDEL

Our experience during Operation Desert Storm has proven the value of deception on today's battlefield. On future battlefields it would be prudent to expect our opponent to attempt to overcome our technological advantage through the use of deception. This section will assess how CENTCOM applied the six principles of deception during the formulation of their deception plan.

FOCUS

General Schwarzkopf studied his opponent well. He knew that Saddam Hussein thought that America lacked the will to fight and that upon sustaining high casualties would seek a diplomatic solution to the war. President Bush had established a specified end state of Iraqi forces out of Kuwait; which could have been interpreted as limiting combat to Kuwait. Additionally, Hussein knew how difficult it would be to navigate in the desert and mirror imaged this difficulty to the coalition force as well. CINCCENT focused the deception effort at Hussein and the ruling party leaders through the use of both American and International media to convince Hussein that his perceptions were correct.

OBJECTIVE

Deception plan supports the operational scheme. Many deception operations fail because the deception story does not support reality. Deception is a means to an end. It is never an end in itself. Modern deception plans must have a clearly defined

aim. The deception staff must ask the commander "What do you want the enemy to do?" never "what do you want the enemy to think?" Clearly CENTCOM planners focused their efforts on fixing Iraqi forces in the east, both in Southern Kuwait and along the coast to keep those units out of the initial fight and unavailable to reinforce the units in the west.

CENTRALIZED CONTROL

CINCCENT maintained centralized control over multiple coordinated deception plans that were executed decentrally by subordinate commanders. The effect was a single, synchronized, multi-spectral deception of the Iraqi high command.

SECURITY

Individual units were unaware of the deception operations conducted by other units on the battlefield. The media was shown US capabilities and potential to conduct both amphibious assaults and obstacles breaching drills without being told of actual offensive plans, resulting in the Iraqi forces being deceived as to place and time.

TIMELINESS

The various deception activities were conducted over an extended time period, all playing on Husseins pre-conceived belief that we would attack directly into Kuwait. As each operation was conducted, Iraqi dispositions were scrutinized to determine his reaction. Actions favorable to the CENTCOM planned envelopment were repeated, while enemy movements not favorable were quickly targeted for air attack.

INTEGRATION

CENTCOM's deception plan was fully integrated into the operation plan to ensure that enemy actions did not conflict with CINCCENT's objective. Additionally,

all forces were integrated into the deception story ensuring Husseins focus on Kuwait' borders and not along his western flank.

CENTCOM planners made excellent use of deception to shape the battlefield and defeat the Iraqi forces in Kuwait and southern Iraq. The principles and maxims listed in Joint Pub 3-58 and Field Manual 90-2 contributed significantly to the success of that deception operation.

CONCLUSIONS

IN WAR...THERE IS NEVER A REASON TO MAKE LIFE EASIER FOR THE ADVERSARY...
MICHAEL I. HANDEL⁸⁴

Even with the development of sensor systems that appear to render the modern battlefield transparent, we would be foolish to maintain the perception that we cannot be deceived. As this paper has shown, deception activities do not target the sensor, they target the decision maker. On future battlefields, "unless the target intelligence organization is inept...most activity will be detected."⁸⁵ The focus of the deception effort will always be to condition the mind of the decision maker, because once conditioned "...we tend to perceive what we expect to perceive."⁸⁶

By focusing efforts on understanding our opponent and how he thinks, we can deceive him as to our intentions and cause him to take specific actions that place him at a disadvantage. Complex sensors are simply additional conduits for convincing an adversary of false activities. U.S. Joint force Commanders must remain vigilant to the possibility that what the sensors are reporting may be exactly what the enemy commander wants us to see. We must learn to both deceive and protect ourselves from deception if we are to remain victorious on our future conflicts.

ANNEX A

Amphibious Task Force Deception Operations:³⁷

29 January, 13th MEU (SOC) raided Umm Al-Maradim Island off the Kuwaiti coast.

20 February, 4th MEB air attack on Faylaka Island for two days, followed by NGFS on 23 and 24 February.

25 February, 13th MEU (SOC) heliborne feint towards the coastal town of Al-Fintas, 15 miles south of Kuwait City.

25 February, 4th MEB heliborne feint towards the coastal town of Ash-Shuaybah, 25 miles south of Kuwait City.

26 February, 4th MEB heliborne feints towards Faylaka and Bubiyan Islands.

1st Cavalry Division Deception Operations:³⁸

5 February 1991, 1-7 Cavalry, 1st Cavalry Division initiates attacks to destroy Iraqi forward observation posts with attack helicopters and artillery attack.

13 February, A/21 FA (MLRS) initiates Operation Red Storm, artillery attacks against known Iraqi artillery positions, destroying elements of eight artillery battalions and an infantry company.

14 February, 1-7 Cavalry reinforced by a company from the 8th Engineer Battalion initiates Operation Berm Buster to open three lanes in the 15 foot earth berm separating Saudi-Arabia from Iraq. Additionally attacks three forward observation posts overwatching the berm.

15 February, TF 1-32 Armor, reinforced by C. Company, 8th Engineer Battalion, and the 3-82 FA Battalion conducts Operation Berm Buster II. Operation opened nine lanes in the earth berm, destroyed an Iraqi observation post, and

emplaced and concealed a U.S. Long Range Surveillance Detachment (LRSD) team observation post. The operation was enhanced by the emplacement of 14 M1 tank mock-ups and the use of a PSYOPs team using loudspeakers to play noises associated with moving armored vehicles.

15 February, DIVARTY, reinforced by the 42d Artillery Brigade, and attack helicopters from the 11th Aviation Brigade conducts the second attack of Operation Red Storm against known and templated positions of enemy forces directly north of the gaps created in the border berm during Operations Berm Buster I and II

16 February, Mounted and dismounted reconnaissance of the terrain just north of the lanes in the berms conducted by elements of both 1st and 2d Brigades.

18-19 February, TS 2-8 Cavalry opens three additional lanes in the berm and conducts short range mounted and dismounted reconnaissance north into Iraq to locate the enemy 1st echelon defensive positions. Coordinated attacks using USAF A-10 Close Air Support to destroy enemy artillery and observation posts.

20 February, TF 1-5 Cavalry supported by additional elements of 2d Brigade conducts Operation Knight Strike, an aggressive reconnaissance in force mission to determine enemy disposition, composition, strength, and intent. Approximately 10 kilometers north of the border berm in Iraq the Task Force makes contact and destroys a defending enemy infantry battalion, simultaneously USAF A-10s attack and destroy over 100 tubes of Iraqi artillery which removed their camouflage to support the infantry battalion defense. TF 1-5 Cavalry continues the reconnaissance northward and while collecting prisoners of war from the destroyed enemy battalion position receives heavy fire from 2d echelon defensive forces, loses two M2 fighting vehicles, one Vulcan ADA track and their crew, and withdraws to the south.

24-25 February, 2d Brigade executes Operation Quick Strike, an aggressive Brigade-level reconnaissance in force to fix the enemy forces in the Wadi Al-Batin and to determine if a weak spot could be located in the enemy's defense vicinity the juncture of the Iraqi, Kuwait, and Saudi borders. As the VII and XVIII Corps conducted their wide envelopment around the enemy defense, 2d Brigade, 1st Cavalry Division fixed and destroyed elements of one Iraqi armored, and five Iraqi infantry divisions defending the Wadi.

ENDNOTES

- ¹ William Slim, *Defeat Into Victory*. (1956): 292.
- ² Martin C. Libicki, *What is Information Warfare?* (1995): 22.
- ³ John M. Shalikashvili, *Joint Vision 2010*. (1996): 13.
- ⁴ *Ibid.*, 1.
- ⁵ *Ibid.*, p 2.
- ⁶ *Ibid.*, p 16.
- ⁷ Sun Tzu, *The Art of War*. (1963): 53.
- ⁸ Michael I. Handel, *Strategic and Operational Deception in the Second World War*. (1987): 1.
- ⁹ Sun Tzu, *The Art of War*. (1963): 53.
- ¹⁰ Henri de Jomini, *Summary of the Art of War*. (1854): 179.
- ¹¹ General Waldemar Erfurth, *Surprise*. (1943): 9.
- ¹² *Ibid.*, 6.
- ¹³ Mao Tse-tung, *On Protracted War*. (1967): 77.
- ¹⁴ *Ibid.*, 76.
- ¹⁵ Michael I. Handel, "Intelligence and Deception," *Military Deception and Strategic Surprise*. Edited by John Gooch and Amos Perlmutter. (1982): p 122.
- ¹⁶ Barton Whaley, *Stratagem: Deception and Surprise in War*. (1969): 9.
- ¹⁷ US Army FM 90-2, p 2-1.
- ¹⁸ *Ibid.*, p 3-1.
- ¹⁹ *Ibid.*, 1-3.
- ²⁰ *Ibid.*, 1-5.
- ²¹ *Ibid.*, 1-7.
- ²² *Ibid.*, 1-9.
- ²³ *Ibid.*, 1-9.
- ²⁴ *Ibid.*, 1-11.
- ²⁵ *Ibid.*, 1-12.
- ²⁶ *Ibid.*, 1-12.
- ²⁷ *Ibid.*, 1-13.
- ²⁸ *Ibid.*, 1-13.
- ²⁹ *Joint Pub 3-58: Joint Doctrine for Military Deception*. Washington, D.C.: 31 Mayh 1996.
- ³⁰ Winston S. Churchill, *The Second World War*, Vol 5. (1948): 338.
- ³¹ U.S. Department of Defense, *Final Report to Congress: Conduct of the Persian Gulf War*. (1992): 247.
- ³² *Ibid.*, p 217
- ³³ Michael I. Handel, *Strategic and Operational Deception in the Second World War*. (1987): 27.
- ³⁴ *Ibid.* p 143.
- ³⁵ Donald C. Daniel, and Katherine L. Herbig, ed. *Strategic Military Deception*. New York: Pergamon Press. (1982): p 10.
- ³⁶ Richard Heuer. "Cognitive Factors in Deception and Counterdeception," *Strategic Military Deception*. p 39.
- ³⁷ U.S. Department of Defense. *Final Report to Congress: Conduct of the Persian Gulf War*. Washington, D.C.: U.S. Government Printing Office (April 1992), p 217-220.
- ³⁸ Jeffrey E. Philips and Robyn M. Gregory, *America's First Team in the Gulf*. Dallas: Taylor Publishing Company (1992) p 105-125.

BIBLIOGRAPHY

GOVERNMENT PUBLICATIONS

Bjorge, Dr. Gary J. *Deception Operations: Historical Bibliography No. 5*. Fort Leavenworth, Kansas: Combat Studies Institute, January 1986.

Cole, Hugh M. *The Ardennes: Battle of the Bulge*. Washington, DC: Center of Military History, United States Army, 1988.

Libicki, Martin C. *What Is Information Warfare?*. Washington, D.C.: National Defense University, August 1995.

Shalikashvili, John M. *Joint Vision 2010*. Washington, D.C.: Chairman of the Joint Chiefs of Staff, 1996.

The Joint Chiefs of Staff. *Joint Pub 1: Joint Warfare of the Armed Forces of the United States*. Washington, D.C.: 10 January 1995.

_____. *Joint Pub 2-0: Joint Doctrine for Intelligence Support to Operations*. Washington, D.C.: 5 May 1995.

_____. *Joint Pub 3-0: Doctrine for Joint Operations*. Washington, D.C.: 1 February 1995.

_____. *Joint Pub 3-58: Joint Doctrine for Military Deception*. Washington, D.C.: 31 May 1996.

_____. *Joint Pub 5-0: Doctrine for Planning Joint Operations*. Washington, D.C.: 13 April 1996.

U.S. Department of Defense. *Final Report to Congress: Conduct of the Persian Gulf War*. Washington, D.C.: U.S. Government Printing Office, April 1992.

U.S. Department of the Air Force. *AFM 1-1, Vol II: Basic Aerospace Doctrine of the United States Air Force*. Washington, D.C.: March 1992.

U.S. Department of the Army. *FC 90-2, Deception Operations Planning Guide*. Fort Leavenworth, KS: Combined Arms Development Activity, 1985.

_____. *FC 90-2, Battlefield Deception*. Washington, D.C.: Department of the Army, September 1986.

_____. *FM 31-40, Tactical Cover and Deception*. Washington, D.C.: Department of the Army, September 1967.

_____. *FM 90-2, Tactical Deception*. Washington, D.C.: Department of the Army, 1978.

_____. *FM 90-2, Battlefield Deception*. Washington, D.C.: Department of the Army, October 1988.

_____. *FM 100-5, Operations*. Washington, D.C.: Department of the Army,
July 1976.

_____. *FM 100-5, Operations*. Washington, D.C.: Department of the Army,
August 1982.

_____. *FM 100-5, Operations*. Washington, D.C.: Department of the Army,
May 1986.

_____. *FM 100-5, Operations*. Washington, D.C.: Department of the Army,
June 1993.

_____. *Final Report EDBP No 2. Review and Modernization of Engineer
Doctrine and Technique for Camouflage and Combat Deception Operations*. Fort Belvoir,
VA: U.S. Army Corps of Engineers, Engineer Developments Board, September 1954.

U.S. Department of the Navy. *FMFM-1: Warfighting*. Washington, D.C.: 6 March 1989.

BOOKS

Adan, Avraham (Bren). *On the Banks of the Suez*. Jerusalem: Edanim Publishers, 1979.

Bradley, Omar N. *A Soldier's Story*. New York: Henry Holt, 1951.

Brown, Anthony Cave. *Bodyguard of Lies*. New York: Harper & Row, 1975.

Churchill, Winston S. *The Second World War*. Volume 5. London: Cassell, 1948-54.

Clausewitz, Carl von. *On War*. Edited and translated by Peter Paret and Michael Howard.
Princeton, PA: Princeton University Press, 1976.

Cruikshank, Charles G. *Deception in World War II*. New York: Oxford University Press,
1980.

Daniel, Donald C. and Katherine L. Herbig, ed. *Strategic Military Deception*. New York:
Pergamon Press, 1982.

Erfurth, General Waldemar. *Surprise*. Translated by Dr. Stephen J. Possony and Daniel Vilfroy.
Harrisburg, PA: The Telegraph Press, 1943.

Handel, Michael I. ed. *Strategic and Operational Deception in the Second World War*. London:
Frank Cass & Co. Ltd, 1987.

Herzog, Chaim. *The Arab-Israeli Wars*. New York: Random House, 1982.

Jomini, Henri de. *Summary of The Art of War*. Translated by Major Winship, USA, New York:
Putnam and Co., 1854.

MacDonald, Charles B. *A Time for Trumpets: The Untold Story of the Battle of the Bulge*. New
York: Bantam Books, 1984.

Mao Tse-tung. *On Protracted War*. Peking: Foreign Languages Press, 1967.

- Mellenthin, F.W. von and R.H.S. Stolfi with E. Sobik. *NATO Under Attack*. Durham, NC: Duke University Press, 1984.
- Mure, David. *Master of Deception: Tangled Webs in London and the Middle East*. London: William Kimber, 1980.
- Phillips, Jeffrey E. and Robyn M. Gregory. *America's First Team in the Gulf*. Dallas: Taylor Publishing Company, 1992.
- Reit, Seymour. *Masquerade*. New York: Hawthorn Books, 1978.
- Shazly, Saad el LTG. *The Crossing of the Suez*. San Francisco, CA: American Mideast Research, 1980.
- Slim, Sir William. *Defeat into Victory*. London: Cassell and Company, 1956.
- Sun Tzu. *The Art of War*. Translated by S.B. Griffith, New York: Oxford University Press, 1963.
- Vigor, P.H. *Soviet Blitzkrieg Theory*. New York: St. Martin's Press, 1983.
- Whaley, Barton. *Strategem: Deception and Surprise in War*. Cambridge, MA: Center for International Studies, Massachusetts Institute of Technology, 1969.

PERIODICALS AND ARTICLES

- Dick, C.J. "Catching NATO Unawares: Soviet Army Surprise and Deception Techniques," *International Defense Review* (January 1986): 21-26.
- Stevens, Jennie A. and Henry S. Marsh. "Surprise and Deception in Soviet Military Thought," *Military Review* (June 1982): 2-11 and (July 1982): 24-35.

REPORTS AND UNPUBLISHED MANUSCRIPTS

- Burgdorf, Charles E. MAJ. *An Appreciation for Vulnerability to Deception at the Operational Level* (SAMS Monograph), Fort Leavenworth, KS: Command and General Staff College, 7 May 1987.
- Campbell, Charles C. MAJ(P). *Surprise: The Precursor to Soviet Operational Success* (SAMS Monograph), Fort Leavenworth, KS: Command and General Staff College, 9 April 1986.
- Clark, Robert L., IV MAJ. *The Essential Elements of Operational Surprise* (SAMS Monograph), Fort Leavenworth, KS: Command and General Staff College, 15 May 1987.
- Harman, Larry D. MAJ. *Deceptive Logistics at the Operational Level of War* (SAMS Monograph), Fort Leavenworth, KS: Command and General Staff College, 1987.
- Hughes, Patrick H. LTC. *Battlefield Deception Primer* (SAMS Course Reading), Fort Leavenworth, KS: Command and General Staff College, 1987.